

Metropolitan Facilities Operation & Management: 2.1.6 Metropolitan Wastewater Collection

2.1.6.1 Introduction

Although sewage systems themselves are not a regular source of storm water pollution, raw sewage contains pollutants that can pose a serious threat to both human health and the quality of receiving waters if they enter the storm drain system through incidents such as spills, leaks, or overflows. The goal of this program component is to minimize the impact of the City-owned sewage collection system on storm water quality.

The City's program must meet the requirements of the San Diego County Municipal Storm Water Permit), as summarized in Table 2.1.6-1.

Table 2.1.6-1. Permit Requirements – Municipal Wastewater Collection.

Section	Requirement (Summary)	Permit Section
2.1.6.2	Implement pollution prevention methods	F.3.c.(1)
2.1.6.2	Designate and implement minimum BMPs to protect water quality	F.3.a.(4)
2.1.6.2	Inspect areas and activities annually	F.3.a.(7)
2.1.6.2	Comply with City of San Diego storm water ordinance	F.3.a.(8)
2.1.6.2	Implement a maintenance schedule for all structural controls designed to reduce pollutant discharges into and from the storm water conveyance system	F.3.a.(5)(a)
2.1.6.2	Elimination of illicit discharges and connections	F.5.d.
2.1.6.2	Prevent and respond to all sewage spills	F.5.f.
2.1.6.2	Limit infiltration from sanitary sewer to storm drains	F.5.i.
2.1.6.4	Develop a budget for storm water expenditures for each fiscal year covered by the Municipal Permit	F.8
2.1.6.5	Document activities for Jurisdictional Urban Runoff Management Program Annual Report	I

The objectives of this program component are to:

- Develop and implement a storm water pollution prevention plan to designate, implement, and periodically update storm water practices at municipal wastewater collections facilities to control the introduction of pollutants to storm water.
- Identify an implementation schedule and associated estimated costs needed to implement the municipal wastewater collections component through the five-year life of the Municipal Permit.
- Develop and implement a storm water best management practices employee-training program.

- Develop and implement a storm water best management practices to protect water quality.
- Conduct activities in accordance with the City of San Diego Storm Water Ordinance.
- Develop and implement a maintenance schedule for all structural controls.
- Keep any sewage system overflows or leaks from entering the storm drain system or receiving waters to the maximum extent practicable.
- Identify, repair and remediate sewage system blockages, exfiltration and overflows.
- Investigate and eliminate suspected cross-connections from the sanitary sewers to the municipal storm drain system.
- Monitor, inspect, clean and maintain all components of the collection system to reduce the potential of sanitary overflows and other structural failures
- Respond to overflows and investigate complaints of sewage.
- Develop a system to document storm water pollution prevention activities conducted at the MWWDC Collections that will then be submitted annually to the Storm Water Pollution Prevention Program along with an annual activities report.

Facilities Covered by the Permit

Facilities that are covered under this program component include sanitary sewer pipes, low flow interceptor systems, and small pump stations owned and operated by the City of San Diego Metropolitan Wastewater Department (MWWDC). The MWWDC maintains and operates the sewage collection system in the City of San Diego except private facilities including the Navy and Marine Bases, Lindbergh Field Airport, and other facilities on private property or within private streets.

2.1.6.2 Activities

The MWWDC shall maintain a designated coordinator or coordinators to keep informed about the Municipal Permit so that he/she can provide guidance to department management and staff in implementing the MWWDC Collections Division Component of the Urban Runoff Management Plan document. The name(s) of the coordinator shall be submitted to the Storm Water Program by Thursday, February 21, 2002—the Urban Runoff Management Program implementation date. The MWWDC Collections Division shall provide the names of new representatives whenever the designated coordinator is replaced. The Storm Water Program will interact with the coordinator(s) to provide the latest Municipal Permit information and to request annual compliance reports from the MWWDC Collections Division.

The MWWDC Collections Division will conduct the following activities, which are further described in the sections below:

Pollution Prevention Methods

Pollution prevention methods at the above named facilities are focused on the prevention of sewer overflows and the minimization of impacts resulting from any sewer spills or seepage. Prevention and response plans are in place to provide guidance and consistency in departmental activities. The City of San Diego's Sewer Overflow Response Plan is designed to ensure that every report of a sewer spill is immediately dispatched to the appropriate City crews. This will ensure that the impacts of the overflow can be minimized with respect to its adverse impacts on surface waters and storm drains, as well as on water quality and beneficial use. The Sewer Overflow Prevention Plan is organized to provide a general overview of the City's wastewater collection system and sewer overflow prevention program. These Plans provide for the routine monitoring, inspection, cleaning and related maintenance of all components of the collection system to reduce the potential of sanitary sewer overflows and other structural failures. They also outline specific procedures and practices aimed at containment and cleanup in the event of a sewage spill or when seepage is detected.

Storm Water BMPs to Protect Water Quality

MWWD Collections has designated and implemented BMPs to protect water quality. The BMPs include good housekeeping activities at MWWD facilities, clean up and mitigation activities after a sewer spill, and erosion control in areas disturbed by the work of MWWD crews or construction. In addition, MWWD uses the City's Equipment Division in the General Services Department to wash vehicles and to perform scheduled maintenance on vehicles. This minimized pollution from wash down, leaks and failures.

Vehicle Parking and Storage Inspections

MWWD inspects their vehicle parking and storage areas at least monthly to conduct housekeeping and to verify compliance with the Urban Runoff Management Plan.

Routine Inspection and Cleaning, Review of Activities

The following self-inspections processes will be performed at Operations Centers:

- Facilities will be inspected annually and cleaned as needed.
- Maintenance activities will be reviewed annually to verify that appropriate storm water BMPs and practices are being utilized.
- Report modifications and corrective actions identified during self-inspection to the Storm Water Program annually as part of the Program Assessment.

Twenty-Four Hour Non-Storm Water Discharge Reporting

Certain non-storm water discharges, because of their nature or magnitude, require timely reporting to the Regional Board. A report will also be forwarded to the Storm Water Program for record keeping purposes. Non-storm water discharges that pose a significant threat to water quality or human health, will be evaluated by City staff against

the “24-Hour Non-Storm Water Discharge Reporting Checklist”. A significant threat to water quality or human health is determined on a case-by-case basis and will be dependent on the type of pollutant, the degree of the violation (i.e. the amount of pollutant discharged into the municipal storm drain system), the proximity to receiving water bodies, the potential for exposure to the public, and the potential for environmental damage. Examples of discharges that will be reported include sewage spills and non-storm water discharges, such as a significant sediment load into Los Penasquitos Lagoon.

Where staff determines that discharges pose a significant threat to water quality or human health, the Storm Water Program or responsible City department will notify the Regional Board orally and by facsimile within 24 hours of the discharge event. Additionally, a written report of the event and follow up actions will be sent to the designated Regional Board contact for the Municipal Storm Water Permit, if needed, within 5 working days of the day the event was identified. A standard reporting form will be created by the Storm Water Program to be used by all City departments to facilitate consistency and maintain clear communication with the Regional Board. The report will contain the following information:

- Description of the event and it's cause;
- Duration of the event;
- Time the event is expected to continue if it has not been corrected;
- Steps taken to correct the non-storm water discharge event.

Comply with Storm Water Ordinance

MWWD Collections will perform all activities in a manner that comply with the Storm Water Ordinance.

Structural Controls Maintenance Schedule

MWWD Collections has developed and implemented a schedule for the maintenance of all structural controls. This schedule includes the inspection, the removal of wastes that may have accumulated, and the proper disposal of all wastes. In addition, every effort is made to eliminate and/or clean up discharges to the storm water system during maintenance and cleaning operations.

Elimination of Illicit Discharges and Connections

The City's preventive and corrective maintenance programs consist of a variety of components providing for the operation, maintenance, repair, and replacement of sewer mains, manholes, laterals and pump stations. The programs are detailed in the Sewer Overflow Prevention Plan (SOPP) for the City of San Diego that has been submitted to the RWQCB. The City will continue implementation of this program to verify any

suspected illegal connections or cross connections between the Sewer and Storm Drain systems. Some highlights of the program include:

- Notation of the condition of sanitary sewer structures and identification of areas suspected as illicit connections during routine maintenance and inspection of the sewage collection system.
- Education of field staff to recognize suspected cross-connections from the municipal storm drain to the sanitary sewer system during their daily activities.
- Maintenance of accurate records of both sewer connections and new sewer lines.
- Reporting of suspected cross-connections to the Storm Water Hotline at (619) 235-1000; work with the Storm Water and Streets Divisions to rectify the problem, when appropriate.

Prevent and Respond to All Sewage Spills

The City of San Diego has submitted the Sewer Overflow Response Plan and the Sewer Overflow Prevention Plan to the Regional Board. A copy of these plans can be obtained by calling the MWWDC Collections Division at (858) 292-6484. The City will continue to be responsible for implementing the procedures in this plan, where applicable, to contain spills, leaks, and overflows from sanitary sewer pipes, and pump stations in the City of San Diego. The City is not responsible for sewer infrastructure on private facilities including the Navy and Marine Bases, Lindbergh Field Airport, and other facilities on private property, or within private streets. When MWWDC responds to a sewage spill and it is determined to be from a private lateral, documentation is forwarded to the Storm Water Pollution Prevention Program for enforcement action. The owner of the sewer lateral is responsible for all spill cleanup and maintenance.

The following procedures are implemented, to the maximum extent practicable, to identify, repair and remediate sanitary sewer blockages, exfiltration, and overflows:

- During routine maintenance and inspection, note the condition of sanitary sewer structures and identify areas that need repair or maintenance.
- Document suggestions and requests for repair and report the information to the appropriate manager or supervisor.
- Prioritize repairs based on the nature and severity of the problem.
- Televiser sewer mains to determine their structural integrity and condition.
- Monitor the sewer infrastructure for capacity limitation.
- Patrol canyons where infrastructure exists that may be subject to damage after significant rain events.
- Implement a Capital Improvement Program that is prioritized based on need for a period of up to 10 years
- Minimize the impact of sewage spills by using established procedures designed to protect water quality

- Minimize the impact of sewer spills due to construction activities; all sewer contract documents include language requiring the contractor to submit a sewer spill prevention response plan

Limit Infiltration from Sanitary Sewer to Storm Drains

Seepage from sanitary sewers can infiltrate into the storm drain system in areas where the infrastructure for the two systems is in close proximity. The Collections Division has identified procedures to identify areas in which seepage may be occurring and to repair sewage infrastructure to prevent seepage where necessary. As part of this effort, the following procedures are implemented, when feasible, to identify any infiltration of seepage from the municipal sanitary sewers to the storm drains:

- During routine maintenance and inspection, note the condition of sanitary sewer structures and identify areas that are in need of repair or maintenance to prevent seepage from the sewer system to the storm drain system
- Educate field staff to recognize suspected seepage from the Municipal Sewer to the storm drain system.
- Televiser sewer mains to determine the structural integrity and condition of pipes.
- Comply with the Health Department's minimum requirement for the acceptable separation between the newly installed sewer pipelines and the storm drain system.
- Eliminate any known illicit connection between the sewer system and the storm drain as was described above.

Education & Training

1. Internal/Municipal Education:

The City of San Diego plans to conduct two levels of education and training for staff: General and Activity Specific. All staff will receive a basic introduction to the issue via a "General Storm Water" workshop created by the General Services Storm Water Pollution Prevention Program. Additionally, those departments or work groups that perform work activities specifically identified in, and affected by, the Permit will create, execute and fund Activity Specific training sessions. These sessions will be designed to address work processes, functions and behaviors that are specific to that work group. They will identify the Best Management Practices (BMPs) necessary to prevent illegal discharges into the City's storm water collection and conveyance system and recreational waters.

A) General Storm Water Training Created By the Storm Water Program:

The General Storm Water workshops, while created by the Storm Water Program, are implemented by MWWWD staff trainers. Items 2,3,4,5 and 6, below, are the educational

materials created for the workshops. A “Train the Trainer “ workshop was also created and given by the Storm Water Program (Item 7) to familiarize the trainers on the material and subject matter prior to rolling out the General Training workshop to their department staff.

Table 2.1.6-2. Storm Water Program General Training.

ITEM	AVAILABLE
1. Clean Water Leader/ 3-Cs BMP Reference Card	July 2001
2. General Storm Water Training Video	October 2001 To be completed by June 2002
3. City Employee Brochure	October 2001
4. Stop Pollution Pad	October 2001
5. Employee Knowledge & Behavior Survey. To be given before and after each General Storm Water Workshop by department trainers	October 2001
6. Frequently Asked Questions for department Trainers	October 2001
7. Train the Trainer Sessions. Training of department trainers on content and materials for the General Storm Water Workshops	September 10-14, 2001
8. Storm Water Newsletter	July/August 2002

**Note that Items 1 through 7 occurred in FY 2002 for city-wide distribution, and that Item 8 is slated for Fiscal Year 2003 and reflects an estimated available date.*

B) Activity Specific BMP Training(s):

In addition to the general storm water training provided to all departmental staff, the MWWWD will develop and implement training modules that are designed to meet the specific needs of individual work groups. This training will be developed and administered by MWWWD staff and will address pertinent storm water issues that each group might encounter in their daily work.

Table 2.1.6-3. Department Training Activities.

ITEM	AVAILABLE*
Implement department-wide training for the general storm water overview	Completed by March 2002
Identify needs, create and execute Activity Specific education and training for staff	Initial training completed by December 2003 with refresher training every 5 years
Create Storm Water BMP Reference Binders for Staff	Already completed for compliance with General Industrial Permit

Update BMP Reference Binders -periodic	Completed annually as required by the General Industrial Permit
Train new employees on Storm Water activities. General and Activity Specific to be conducted by supervisor	New Employee Orientation

Note the completion dates listed are estimated. Actual completion dates may vary depending upon other program factors.

2. External Education:

The MWWD has programs and public information materials in place to educate, inform and involve the public in pollution related issues. The information is disseminated through facility tours, brochures, public speaking engagements, and media campaigns focusing on public awareness and participation. Although the bulk of the information focuses on collection, treatment, disposal and pollution prevention as it relates to sewage, we can also provide links to information about storm water pollution. Where possible, the public information materials will be modified to address some of the basic issues with respect to Storm Water pollution. This information will focus on the delineation between sewer and storm water systems and will include the Think Blue logo and contact information for the City's Storm Water Program. Current MWWD programs and publications include:

Table 2.1.6-4. External education programs.

MWWD Program Name	Description
War on Grease	Program to educate the public on the proper disposal of grease. Communities are targeted based on the frequency of grease related problems in specific areas. Brochures, grease scrapers and refrigerator magnets are distributed to residential customers.
Canyon Watch	Program to educate groups that spend recreational time hiking in our urban canyons. Group members are taught to recognize signs of both real and potential sewer spills in the canyons, and to distinguish between sewer spill and storm runoff.
School education	City of San Diego schools are provided with teacher's manuals about the MWWD and pollution control. They may use this in their regular curriculum.
Sewer Spill Hotline	Telephone number for citizens to report suspected sewage spills (619-515-3525). This number is manned 24 hours per day, 7 days per week via the centralized City dispatch center.
Speakers Bureau	MWWD staff provides informational speeches/discussions to a variety of public groups. These talks may focus on any number of issues, including an overview of the department, pollution prevention, environmental issues, and regulations.

Table 2.1.6-5. External Education Materials.

MWWD Brochure Name	Last Date Printed	Quantity on hand
Pt. Loma	03/99	500
MBC	03/01	2000
NCWRP	03/01	1500
Ocean Monitor	09/01	15,000
IWCP	02/01	100
Dept. Brochure	currently being re-worked	-----
Grease	09/01	50,000
WW Collection	01/01	500
School Book	will be revised next year	-----
SBWRP	currently being designed	-----
Key Facts	currently being re-worked	-----
Flow Monitor Fact sheet	06/01	100
Energy Fact Sheet	10/01	100

MBC – land application	In design stage	-----
Neighborhood Profiles	in progress	-----
Canyon Watch Fact sheet	10/01	100
SPWRP fact sheet	05/01	25
Storm runoff vs. WW Sewer	in design	-----

2.1.6.4 Phasing

The MWWD complies with storm water regulations as part of the requirements for the Point Loma Wastewater Treatment Plant National Pollutant Discharge Elimination System (NPDES) permit and the General Industrial Storm Water Permit. These permit programs have required the implementation of storm water related activities and projects for several years, including capital improvement projects and provisions for major repairs. Training of appropriate staff has been performed and non-structural BMPs are implemented in compliance with these permits. Based on the existing permits, MWWD does not have a phased approach to the Municipal Storm Water Permit.

2.1.6.5 Annual Assessment

The following form is representative of the quantitative and qualitative measures that will be tracked by the Storm Water Program regarding the Metropolitan Wastewater Collection component in order to prepare the Jurisdictional Urban Runoff Management Program annual assessment. *These assessment factors and questions are presented for information only; some questions may be modified prior to each annual assessment period, and not all of the factors or questions below may apply to each component's responsible department(s).* Prior to each fiscal year, a tailored Annual Assessment Form will be distributed to responsible departments, and will include an Excel spreadsheet containing direct and indirect quantitative and qualitative measures similar to the example below. The Storm Water Program will provide a blank copy of the Annual Assessment Form and additional guidance to department management prior to the beginning of each fiscal year. Submission of this report will require department director approval.

Program Assessment Form - Municipal Facilities Operations and Management – Metropolitan Wastewater Collection

QUANTITATIVE ASSESSMENT:

Activity	Quantity	Units	Comments
Number of high priority municipal facilities		#	
Number of high priority municipal facilities targeted for inspection		#	Due to calendar-year vs. fiscal year, staffing, budget, etc., as well as Permit Section F.3.b.(6)(d), the number of sites targeted for inspection may be less than the actual number of sites.
Number of high priority municipal facilities inspected		#	Number of sites (not the number of inspections, which may or may not be the same).
Number of medium and low priority municipal facilities inspected		#	See above.
Quantity of material removed from MS4		tons	direct measure; report in tons.
Quantity of debris removed that could have enter MS4 (i.e. street sweeping, litter removal)		tons	direct measure; report in tons.

QUALITATIVE ASSESSMENT:

1. Describe the major accomplishments of this component over the past year.

2. Summarize the educational and outreach activities conducted for this component over the past year to educate staff on water quality principles.

3. Summarize new activities or improvements to be implemented next year as a result of your self-assessment.

4. Other comments.

FINANCIAL ASSESSMENT:

Estimated annual storm water expenditures:

Personnel Expenditures: _____

Non-personnel Expenditures: _____